

Appl. Serial No. 10/069,741  
Docket No. FR 000067US

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Remarks

As explained in Applicant's previous Office Action Response, the *Denno* reference fails to show any structure or functionality relating to the claimed invention which concerns compensating for and/or correcting phase jumps in a sequence of symbols (the *Denno* reference fails to address or even mention phase jumps as being an issue). This distinction was not addressed in the instant Office Action which bases each rejection on an apparent misinterpretation of this *Denno* reference.

The Office Action dated June 16, 2006 indicated the following rejections: claims 1, 4, and 6 stand rejected under 35 U.S.C. § 102(b) over *Denno et al.* (U.S. Patent No. 5,287,067); claims 2, 7 and 9-10 stand rejected under 35 U.S.C. § 103(a) over *Denno* further in view of *Junell* (U.S. Patent No. 6,181,755); claims 3 and 8 stand rejected under 35 U.S.C. § 103(a) over *Denno* and *Junell*, further in view of *Oura et al.* (U.S. Patent No. 6,038,267); and claim 5 stands rejected under 35 U.S.C. § 103(a) over *Denno* in view of *Oura*. While there are contradictions as to the non-finality of the Office Action, its Conclusion section (p.6) and the USPTO PAIR system indicate that the Office Action is non-final; Applicant has accordingly responded with the understanding that this Office Action is non-final.

Applicant respectfully maintains that each of the asserted prior-art rejections (all being based on the *Denno* reference) fail to correspond (e.g., the rejections of claims 1, 4, and 6 duplicate the rejections from the previous Office Action (pp. 2 and 3, including the Response to Arguments section). Therefore, Applicant traverses each of the Section 102(b) and Section 103(a) rejections for the reasons previously presented and further addressed herein. Contrary to the requirements of M.P.E.P. § 707.07(f), the Office Action has largely repeated the rationale from the previous Office Action and fails to address Applicant's arguments. See also 37 C.F.R. § 1.104(a)(2) and 35 U.S.C. § 132 (responding to an applicant's argument is necessary to aid the applicant in judging the propriety of continuing the prosecution).

Specifically regarding the Section 103(a) rejections, Applicant appreciates that the previous arguments filed on November 25, 2005, with respect to the rejections of claims 2-3 and 7-10 over *Denno* in view of *Oura* and *Junell* were persuasive and that the rejections

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have been withdrawn. However, the instant Office Action has rejected claims 3 and 8 over the same three references for the same reasons as the previous Office Action. Applicant is unclear of why claims 3 and 8 still stand rejected if the previous argument was persuasive. The Office Action also fails to address Applicant's arguments concerning the lack of evidence of motivation. Therefore, Applicant requests that the Section 103(a) rejection be withdrawn.

The cited portions of the *Denno* reference are based on *Denno*'s phase error estimation circuit 21 which does not at all correspond to the claimed aspects involving a phase sequence calculation based on decisions made on symbols, and means for detecting and correcting phase jumps in this initial sequence. *Denno*'s phase error estimation circuit 21 attempts to correct for phase errors based on estimated phase errors for the "present and immediately preceding symbols" without regard to any phase jump (between one or more adjacent phases). As acknowledged in connection with the rejection, in the *Denno* reference, "The phase error estimation circuit 21 estimates the initial phase error due to the frequency error by using RLS (Recursive Least Square) algorithm in the tentatively demodulated signals U entered from the A/D converters 4, according to the output of the involution circuit 29." This *Denno* structure and function are entirely unrelated to the claimed "means" structure (e.g., 60) for detecting and correcting phase jumps.

Applicant requests that Official Notice be given to a multitude of publicly-available references that explain the meaning of a phase jump for a given application; these references include the publication of the instant Application (see Background), many issued US Letters Patents (see, e.g., 6,960,948 ("enables rapid output clock phase changes, referred to herein as "phase jumping", )); see also <http://www.iks.tugraz.at/lehre/unterlagen/nachrichtensatelliten/psk.pdf#search=%202qpsk%20%22phase%20jump%22%20%22phase%20error%22%22>. For further discussion in the Specification, reference may be made to its publication, e.g., paragraphs 7, 34, 41-43.

Accordingly, *Denno* fails to show means for detecting and correcting phase jumps in any sequence which is then provided to the frequency error estimation means. The Section 102(b) and 103(a) rejections are improper and Applicant requests that they be withdrawn.

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Applicant further traverses the Section 103(a) rejections of claims 2, 7 and 9-10 over Denno further in view of Junell because evidence of motivation is lacking. The Office Action claims that a relationship exists between minimized error calculated and the mean difference but does not attempt to align these claim limitations with the cited teachings of the asserted prior art. Applicant submits that simply establishing a relationship exists between minimized error calculated and the mean difference does not suggest motivation to use the mean difference for the purposes of Applicant's invention (see, e.g., M.P.E.P. § 2143.01). Accordingly, these related Section 103(a) rejections are improper and Applicant requests that they be withdrawn.

Applicant traverses the Section 103(a) rejections of claims 3, 5, and 8 because the proposed modification of Denno (in view of Oura, or Oura and Junell) is improper and cannot be maintained. For example, the proposed modification would undermine the purpose of the Denno reference. As consistent with relevant case law and the M.P.E.P., there is no motivation to modify a reference where the modification would undermine or defeat the purpose of the reference (see, e.g., *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)). The purpose of the Denno reference is to achieve high-speed error correction without the use of a complicated circuit configuration or a significant delay (see, e.g., col. 3, lines 5-12). Modifying Denno with the teachings of Oura would require extra circuits and create additional delay. Specifically, Oura's method of detecting frequency offset is directed at determining a frequency-offset of a locally generated unmodulated signal (see, e.g., Fig. 1, block 11) whereas Denno's method of phase-offset calculation compares modulated complex signals and demodulated complex signals (see, e.g., col. 5, lines 1-24) to determine a frequency error. The proposed combination of Denno and Oura would require additional circuits. Therefore, the proposed modification of Denno in view of Oura would frustrate Denno's purpose of high speed error correction, without the need for a complicated circuit configuration or significant delay. Consistent with M.P.E.P. § 2143.01, a skilled artisan would not be led to modify the Denno reference in view of Oura. Therefore, the Section 103(a) rejections of claims 3, 5, and 8 are improper and Applicant requests that they be withdrawn.

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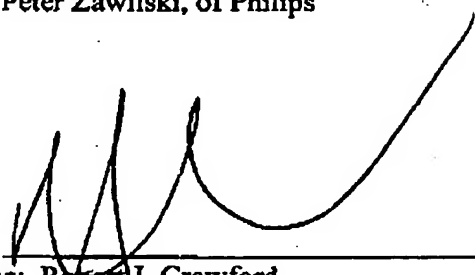
Applicant further traverses the Section 103(a) rejections because the rejections do not consider the claimed invention "as a whole" as required by Section 103(a). As addressed in M.P.E.P. § 2141.02, discovering the source or cause of a problem is part of the "as a whole" inquiry. The combined teachings (as asserted via the claim rejections) not only fail to provide teachings that correspond to Applicant's invention, the combined teachings also fail to address one of the important problems addressed by Applicant's invention. As described at page 2, lines 7-9 of the specification, "When the sequence of phases...includes one or various phase jumps, the frequency estimate obtained is inaccurate." Accordingly, the combined teachings do not correspond to the claimed invention when considered "as a whole" and the rejections should be withdrawn.

In view of the above discussion, Applicant believes that the rejections have been overcome and the application is in condition for allowance. A favorable response is requested. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner may contact the undersigned, Mr. Peter Zawilski, of Philips Corporation at (408) 474-9063.

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